

METHOD AND SYSTEM FOR TURBO ENCODING IN ADSL**ABSTRACT OF THE DISCLOSURE**

In a coding system for asymmetric digital subscriber line (ADSL) communications, a method of encoding a sequence of information bits is provided comprising the steps of dividing the information bits into encoding bits and parallel bits; encoding the encoding bits to produce encoded bits; mapping the encoded bits and the parallel bits into first and second pulse amplitude modulation (PAM) signals; and generating a quadrature amplitude modulation (QAM) signal from these first and second PAM signals. This method overcomes the decoder complexity that would otherwise be required due to the large QAM constellations involved for ADSL communications.

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